

[claims] at issue [where] this *analysis should be made explicit.*” *KSR Int’l v. Teleflex, Inc.* No. 04-1350, Slip. op. at 14, 82 USPQ2d 1385, 1396 (U.S. Apr. 30, 2007).

A. No Suggestion of Claimed Reception of *Messages* between Application Server and Gateway Based on a Received Voice over IP Call

Each of the independent claims 1, 11, 16, 20, 35, 45, and 53 specify that: the gateway receives an incoming Voice over IP call and sends an initiation request to the application server, and that the application server receives from the gateway a reject *message*.

As admitted on page in the Official Action, Terajima et al. does not disclose nor suggest recording data from an incoming Voice over IP call in an application server, where the incoming call is received via a gateway configured for receiving *Voice over IP calls*. Rather, the rejection admits on page 5 that “Terajima discloses the above processes are performed based upon receiving requests *directly at the telephone* rather than through a packet network gateway, as *Terajima only explicitly discloses conventional POTS network calls.*”

Moreover, the rejection demonstrates an unreasonably broad interpretation of the claimed “application server”, because the interpretation (encompassing the consumer *answering machine 16* of Terajima) is inconsistent with the specification, which describes the application server as a unified messaging *system* that receives Voice over IP calls from the gateway.

Since Terajima does not disclose or suggest recording data from an incoming Voice over IP call in an application server (via a gateway), but rather a consumer device, the Examiner has the burden of demonstrating that “there was an apparent reason to combine the known elements *in the fashion claimed.*” *KSR Int’l v. Teleflex, Inc.* No. 04-1350, Slip. op. at 14, 82 USPQ2d 1385, 1396. The Examiner has failed to establish the analysis as required by the Supreme Court. Rather, the hypothetical combination teaches no more than “the predictable use of prior art elements according to their established functions,” *Id.*, with no disclosure or suggestion of the claimed features as a whole.

Specifically, the Examiner relies on Chang on page 5 to assert that “an IP telephony

module 59 of gateway device 26 [is] capable of *receiving* both voice and fax calls over the internet using IP protocol (claims 1, 11, 12, 16, 20, 35, 45, 53 - receiving incoming VoIP calls *including initiation and reject messages through a gateway*).”

The rejection states on page 10 that “Chang explicitly discloses the communication of voice and fax call *between parties at two different locations over an IP network*”; further, the rejection concedes that para. 227 of Chang et al. does not “explicitly specify anything about recording or not recording the message.” Moreover, the rejection admits on page 10 that “Chang is *not* relied upon for the disclosure of initiation and reject messages”.

Consequently, if Chang is not relied upon for the disclosure of initiation and reject messages, but for the teaching that Terajima can handle fax and voice calls “communicated *over* packet networks as well as POTS networks,” the hypothetical combination discloses no more than a consumer facsimile device (as disclosed in Terajima) that receives the incoming call via the same conventional telephone line N (see Terajima at Figs. 1 and 2 and col. 5, lines 45-46), where the incoming call that has been routed by an IP network is converted back into a conventional POTS call by a called gateway server.

The rejection concedes that Terajima et al. describes a consumer device, namely a facsimile machine (Fig. 1) that has an automatic answering telephone 16 configured for automatically answering an incoming call in response to detection of the call.

Further, Chang et al. describes that the destination called party can receive the call *either* via the IP network *or* via the public switched telephone network:

[0016] As used herein, a voice telephone call from a caller telephone to **a called telephone**, the call carried via an IP network, is referred to as a VoIP call. As used herein, a fax call from a caller fax machine to **a called fax machine**, the call carried via an IP network, is referred to as an FoIP call.

[0017] Accordingly, it is an object of the invention to provide an integrated voice gateway system for use within a company which can route a voice telephone call between parties at two different locations over an IP network **as well as the PST NETWORK** and to automatically select **which of the IP network and PST NETWORK over which to route the calls**. It is a further object of the invention to provide a system which can route a voice telephone call between a calling party using a telephone at a first location within

the system to a second location within the system via an IP network, **and then from the second location to a called party at a third location via the PST NETWORK.**

Fig. 1 of Chang et al. describes that the customer devices (e.g., telephone), are not part of the gateway server 26 that sends and receives *Voice over IP* calls, but rather are connected to conventional POTS or ISDN telephone connections via a PBX or a Central Office Switch:

[0080] The PBX 34 [of Fig. 2] is coupled to CO1 12. One or more telephones 38 are coupled to the PBX 34. The telephones 38 may be any telephone device connecting to a PBX, e.g. analog (POTS), proprietary digital, or standards-based digital (ISDN BRI). Each telephone 38 may be logically associated with and may be co-located with a respective workstation 24. The gateway server 26 is also coupled to the PBX 34 via an industry standard telephone station interface 33.

Moreover, Chang et al. consistently and repeatedly describes the called party telephone (e.g., 138 or 238) receives the incoming call not from a Voice over IP gateway, but rather from either a Central Office Switch in the Public Switched Telephone Network (PSTN) 16, or a conventional called PBX 134:

CO1 12 routes the telephone call through the PST NETWORK 16 to CO2 14. **CO2 14 delivers the call to the called PBX 134** via an **available trunk** and may transmit a subset of the called telephone number. The called telephone 138 rings and is answered by the called party (not illustrated).

(Para. 165, lines 14-18)

Chang et al. also consistently illustrates in Figs. 2, 4, 5-7, 11-14, 16-46, 50-51, 54-55, and 58 that the called telephone device receives the call via either the Central Office (CO) Switch in the PSTN, or the PBX 134. Moreover, Chang et al. consistently discloses (see, e.g., Figs. 5-14, 16, 19 *et seq*) that the call from the called gateway server 126 to the called PBX 134 is supplied by either a T1 driver driving a telephone trunk line (e.g., T1) (see, e.g., para. 108) or an analog driver 174 that places the call to the destination PBX 134 or CO (see e.g., para. 174, 176).

The rejection provides an argument why one skilled in the art would have combined the teachings of Terajima and Chang et al. *generally* (i.e., according to their predictable use);

however, the rejection fails to provide any analysis of any “apparent reason” that one of ordinary skill in the art would have provided any improvements *beyond* (i.e., more than) the predictable use of Terajima et al. and Chang. et al. according to their established functions.<sup>1</sup>

Consequently, one having ordinary skill in the art, having reviewed both Terajima and Chang, would conclude no more than the predictable result that the *destination* facsimile apparatus of Terajima can be coupled either to a central office switch *or* a called PBX, and that the incoming call is received by the destination central office switch or a called PBX via a conventional telephone line supplied by a called gateway server 126 that received the call via *either* the IP network *or* the PSTN 16.

As apparent from the foregoing, the fact that the calls are routed as Voice over IP calls in the hypothetical combination is not relevant to the *destination* facsimile apparatus of Terajima, because the *destination* facsimile apparatus of Terajima still would receive the call via an analog telephone line N.

Each of the independent claims, however, specify “more than the predictable use of prior art elements according to their established functions”<sup>2</sup>, because the independent claims specify that ***the gateway receives an incoming Voice over IP call*** and sends an initiation request to the application server, and that the application server receives from the gateway a reject ***message***. The rejection concedes with that para. 227 of Chang et al. that does not “explicitly specify anything about recording or not recording the message” and that “Chang is *not* relied upon for the disclosure of initiation and reject messages”.

Hence, even though the claims are entitled to their broadest reasonable interpretation, this broadest reasonable interpretation is insufficient to establish that the hypothetical combination discloses a “gateway” that receives the ***Voice over IP call*** and that sends a “reject ***message***” to the application server. In fact, there is no disclosure of any “message” sent by the “gateway” to the “application server” *especially* since Terajima discloses an electrical signal to identify the

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<sup>1</sup> See *KSR Int’l v. Teleflex, Inc.* No. 04-1350, Slip. op. at 13-14, 82 USPQ2d 1385, 1396.

<sup>2</sup>*Id.*

presence of fax tones (see, e.g., the signal output by the tone detecting circuit 206 in Fig 10; col. 9, lines 1-3 and 48-50): in response to the electrical signal indicating the presence of fax tones, the relay 201b in the answering machine 16 is **opened** in step S29 to release the line N (col. 9, lines 60-63). A signal, however, and the opening of a relay, is not a teaching of a “reject *message*” that is sent from a gateway to an application server, given the broadest *reasonable interpretation*.<sup>3</sup>

Moreover, both the specification and Chang et al. demonstrate that the broadest reasonable interpretation of “gateway” should not be so broad as to encompass the Network Control Unit (107) of Figs. 1 and 2 in Terajima the receive the PSTN signal Line N.<sup>4</sup> Rather, the specification and claims explicitly specify that the claimed “gateway” receives Voice over IP calls, and Chang et al. consistently describes the “gateway network” as interfacing between Voice over IP calls via the IP network 18, and the public switched telephone network 16 via a PBX 34. Hence, any assertions in the rejection that Terajima discloses a “gateway” as claimed is inconsistent with the specification, inconsistent with the interpretation applied in Chang et al., and therefore unreasonable.

For these and other reasons, the §103 rejection of independent claims 1, 11, 16, 20, 35, 45, and 53 should be withdrawn.

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<sup>3</sup>The specification describes the reject message as an H.225 Release Complete Message (see, e.g., page 8, lines 15 and 24-28; page 11, lines 10-11).

<sup>4</sup>“During patent examination, the pending claims must be ‘given their broadest reasonable interpretation consistent with the specification.’” MPEP §2111 at 2100-46 (Rev. 3, Aug. 2005) (*quoting In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000)).

“The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach.” MPEP §2111.01 at 2100-47 (Rev. 3, Aug. 2005) (*citing In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999)).

B. No Suggestion of Application Server Receiving Data via Voice over IP Media Channel, or Reject Message via a Voice over IP Call Control Channel

The disclosed signal of Terajima (let alone the hypothetical combination) fail to disclose or suggest the claimed reject message received *by the application server* and *from the gateway* via the *Voice over IP call control channel*, as specified in independent claims 1, 20, and 35. In fact, the rejection fails to address these claimed features.

Further, the rejection admits on page 8 (with respect to claims 14, 19, and 48) that “Terajima does not explicitly disclose [sic] generating and sending a reject message specifying a voice over IP call reject message.”

Further, the rejection admits on page 10 that “Chang is *not* relied upon for the disclosure of initiation and reject messages”. Moreover, as described above, the hypothetical combination discloses no more than “the predictable use of prior art elements according to their established functions,” namely the facsimile apparatus of Terajima receiving an incoming call from its POTS line N, after having been translated from a Voice over IP call back to a POTS call by the called gateway server 126 of Chang et al.

Consequently, the rejection fails to establish a *prima facie* case that the hypothetical combination discloses or suggests the claimed *application server* “receiving a reject message from the gateway via the Voice over IP *call control channel*”. For this reason alone the §103 rejection of claims 1, 20, and 35 must be withdrawn.<sup>5</sup>

The rejection also fails to address the claimed *application server* “writing first data having been *received from the gateway via a Voice over IP media channel*”, as claimed. As

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<sup>5</sup>It is well settled that each and every claim limitation must be considered. As specified in MPEP §2143.03, entitled “**All Claim Limitations Must Be Taught or Suggested**”: “To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). ‘All words in a claim must be considered in judging the patentability of that claim against the prior art.’ *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).” MPEP §2143.03 at 2100-139 (Rev. 3, Aug. 2005).

described above, the hypothetical combination provides no disclosure or suggestion that the facsimile apparatus of Terajima receives a Voice over IP media channel; to the contrary, the facsimile apparatus of Terajima simply receives the incoming POTS call on its POTS line N after the call on the POTS line N has been translated by the called gateway server of Chang et al. For this reason alone the §103 rejection of claims 1, 20, and 35 must be withdrawn, because the rejection fails to address this claimed feature.

C. No Suggestion of the Gateway Outputting a Reject Message In Response to *Detecting* the Incompatible Message Types

Independent claims 11, 16, 45, and 53 each specify that the gateway, configured for receiving incoming Voice over IP calls, is configured for outputting a reject message in response to detecting that the incoming Voice over IP call corresponds to a second message type incompatible with the first message type. Hence, the gateway actually *detects* the incompatibility, and in response outputs the reject message to the application server.

As described above, the assertion that the claimed gateway can be interpreted to encompass the NCU switch of Terajima is inconsistent with the specification and with the teachings of Chang et al., and therefore is unreasonable.

Further, the hypothetical combination described above discloses no more than “the predictable use of prior art elements according to their established functions,” namely the called gateway server 126 converting an incoming VoIP or FoIP call into a conventional POTS call supplied to a called PBX 134 or a central office switch in the PSTN, for delivery to the facsimile apparatus of Terajima via its POTS line N. Since the rejection fails to demonstrate an apparent reason for one of ordinary skill in the art to have provided the gateway server 126 from Chang et al. with the ability to detect any incompatibility, the hypothetical combination fails to disclose or suggest that the claimed gateway *detects* the incompatibility and *in response* outputs the claimed reject message. Hence, this rejection of claims 11, 16, 45, and 53 should be withdrawn.





D. No Disclosure or Suggestion of Concurrent Messaging Sessions

Contrary to the assertions in the rejection, the hypothetical combination of Terajima and Chang neither discloses nor suggests the claimed feature in claims 12, 16, 49, and 53 of the gateway outputting first and second requests for **concurrent** messaging sessions.

Terajima consistently and unequivocally teaches that the Network Control Unit (NCU) 107 is configured for **switching** a call connection (using a relay 1 in the NCU 107) from the answering telephone 16 to the facsimile apparatus in response to detection of the facsimile tones. **Each and every embodiment** in Terajima teaches switching the relay **from** the answering telephone 16 to the facsimile apparatus.

In fact, the claims of Terajima require that one of the answering phone or fax machine be disconnected at any time, or that the step of “changing over the switch” be performed (see, e.g., claims 1, 9, 16, 21, 24, 30).

Hence, Terajima et al. *consistently* describes that the call connection is **switched** by the relay 1 in the NCU 107 in response to the fax tone detection by the CNG detector 7 in the NCU 107 (see, e.g., Figs. 2, 4, 6, 8) or in the modem 106 coupled to the NCU 107 (e.g., Fig. 5, col. 7, lines 23-31). Therefore, any attempt to modify Terajima to eliminate the switch as described (**and claimed**) by Terajima would be improper. Hence, since the proposed modification or combination would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. MPEP § 2143.01, page 2100-132 (Rev. 2, May 2004) (*citing In re Ratti*, 123 USPQ 349 (CCPA 1959)).<sup>6</sup>

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<sup>6</sup>The Examiner is reminded that the proposed modification cannot change the principle operation of a reference or render it unsatisfactory for its intended purpose. “If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious.” MPEP § 2143.01, Rev. 5, Aug. 2006 at p. 2100-130 (*Citing In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). “If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” *Id.* at 2100-129 (*Citing In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)). *Cf.* MPEP §2145.III at page 2100-

Further, any attempt to remove the switch in Terajima (in order to provide concurrent messaging sessions, as claimed) would destroy the invention of Terajima and would therefore be improper. See Ex parte Hartmann, 186 U.S.P.Q. 366, 367 (P.T.O.B.O.A. 1974) (reversing rejection when modification would destroy basis for invention in one or two references). Therefore, the rejection should be withdrawn.

The Examiner's refusal to consider the claims of Terajima demonstrates an unwillingness to consider the teachings of Terajima in their entirety.<sup>7</sup> In fact, the portion relied on in the rejection on page 4 as disclosing concurrent requests (Fig. 11) does not disclose any concurrent operations. Rather, Fig. 11 describes the operation of the operation within the answering machine 16 of Fig. 10 (col. 4, lines 21-23; col. 9, lines 23-27) and does not provide a description of the disclosed NCU 107 or the disclosed facsimile machine (106 and 101 of Fig. 1). As described above, step S22 in Fig. 11 closes the contact 201b of Fig. 10 in the answering machine 16 to supply the signal from the NCU 107; the NCU 107, however, has its own relay 1 to switch over between facsimile operation and telephone answering machine operation (see, e.g., relay 1 in Figs. 2, 4, 5, 6, 8).

For these and other reasons, the §103 rejection of claims 12, 16, 49, and 53 is legally deficient and must be withdrawn.

D. No Disclosure or Suggestion of Application Server Including Asynchronous Event Manager

Claims 16, 45, 50-52 each specify an *asynchronous* event manager *within the application server* (or application runtime environment) and that is configured for: detecting the

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159 (Rev. 5, Aug. 2006) ("the claimed combination cannot change the principle of operation of the primary reference or render the reference inoperable for its intended purpose.").

<sup>7</sup>"A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. MPEP §2141.02, page 2100-124 (Rev. 5, Aug. 2006) (citing *W.L. Gore & Assoc. v. Garlock, Inc.*, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984))(emphasis in original).

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reject message, causing termination of the instance of the application process, and removing the first data from the data structure.

As described in the specification:

In particular, the application server 18 includes an asynchronous event manager 30 that is implemented as a persistent process executed within the application runtime environment of the application server 18. The asynchronous event manager 30 is configured for monitoring the presence of reject messages from the gateway 12. The asynchronous event manager 30, upon detecting an H.225 reject message that specifies a “Release Complete” having a Cause Information Element having a value of “25” (IE = 25), and updates the corresponding global variables for the identified application session to cause the identified application session to be terminated by the application server 18.

(Page 8, lines 21-28).

Terajima does not disclose the claimed asynchronous event manager within the application server, as claimed. Further, the rejection provides an improper interpretation of Terajima: the rejection on pages 3-4 relies on the CNG detector 7 of Fig. 8, step S26 of Fig. 11, and col. 9, lines 60-65 to assert that “Terajima then discloses that CNG detector 7 (Fig. 8) determines whether the call is a voice call or fax call in step S26 and, if a fax CNG is detected, releases the line, stops processing of writing the received message, and erases the message that had been recorded to that point.”

This interpretation is incorrect: as described above, step S26 is in Fig. 11 and refers to the control program executed in the ROM 222 in the **answering machine 16** to determine whether the CNG signal has been detected by the **tone detecting circuit 206 in the answering machine 16 of Fig. 10** (col. 8, line 45 to col. 9, line 3; col. 9, lines 15-16 and 23-65). Hence, the “CNG detector 7 outputs the CNGDET signal to the **controller 101** [controlling the facsimile machine] upon detecting the CNG signal”, and not the answering machine 16 (col. 6, lines 10-12).

Hence, the CNG detector 7 provides no information whatsoever to the answering machine 16, and is not even a component of the answering machine 16, but rather is a part of the NCU; further, there is no disclosure or suggestion of any detecting of a “reject message” as claimed. As argued above, a “signal” as described in Terajima is not a teaching of the “reject message” output

by the gateway, as claimed.

Further, the tone detecting circuit 206 of Fig. 10 cannot be considered a teaching of the claimed *asynchronous* event manager (illustrated as a *persistent process* that monitors for reject messages), because the tone detecting circuit 206 does not detect any “reject messages”, but simply determines whether a CNG signal is present (col. 9, lines 1-3 and 48-50), so long as the relay circuit 201b in the and the relay circuit 1 in the NCU 107 are closed.

Hence, the hypothetical combination fails to disclose or suggest an *asynchronous* event manager that monitors for the reception of the reject message, as claimed. For these and other reasons, the rejection of claims 16, 45, 50-52 should be withdrawn.

It is believed the remaining dependent claims are allowable in view of the foregoing.

In view of the above, it is believed this application is in condition for allowance, and such a Notice is respectfully solicited.

To the extent necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including any missing or insufficient fees under 37 C.F.R. 1.17(a), to Deposit Account No. 50-1130, under Order No. 95-462, and please credit any excess fees to such deposit account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'L R Turkevich', with a long horizontal stroke extending to the right.

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